## **CLAIMS**

## What is claimed is:

- A method for testing a head gimbal assembly, comprising:
   inputting a control command to perform a long or a full seek operation;
   measuring a frequency response of the head gimbal assembly to the control
   command; and
   comparing the frequency response to a master frequency response.
- 2. The method of claim 1, further comprising the step of positioning the head gimbal assembly at a predefined position before inputting the control command.
- 3. The method of claim 1, further comprising the step of measuring an oscillation of the head gimbal assembly after inputting the control command and performing a fourier transformation of the measured oscillation in order to obtain the frequency response.
- 4. The method of claim 2, further comprising the step of measuring an oscillation of the head gimbal assembly after inputting the control command and performing a fourier transformation of the measured oscillation in order to obtain the frequency response.
- 5. The method of claim 1, wherein the measurement is performed by means of a laser measurement system.
- 6. The method of claim 5, wherein a laser of the measurement laser system is directed into a transversal direction onto the head gimbal assembly for measurement of the oscillation.

- 7. The method of claim 1, further comprising the step of adjusting a mechanical property of the head gimbal assembly for shifting the frequency response into the direction of the master frequency response.
- 8. The method of claim 7, wherein the step of adjusting a mechanical property is performed by weakening the head gimbal assembly or by adding a dampening element.

- 9. A system for testing a head gimbal assembly, the system comprising:
  means (54) for inputting a control command to perform a long seek operation;
  means (55) for measuring a mechanical frequency response of the head gimbal assembly to the long seek operation;
  means (57) for comparing the mechanical frequency response to a master frequency response (58).
- 10. The system of claim 9, further comprising means for measuring an oscillation of the head gimbal assembly and means for performing a fourier transformation for the measured oscillation.
- 11. The system of claim 9, wherein the means for measuring the mechanical frequency response comprises a laser measurement system for directing a measurement laser onto the head gimbal assembly in a transversal direction.
- 12. The system of claim 10, wherein the means for measuring the mechanical frequency response comprises a laser measurement system for directing a measurement laser onto the head gimbal assembly in a transversal direction.
- 13. The system of claim 9, further comprising means for controlling a trimming device (59) for adjusting a mechanical property of the head gimbal assembly in order to move the mechanical frequency response in a direction of the master frequency response.
- 14. The system of claim 10, further comprising means for controlling a trimming device (59) for adjusting a mechanical property of the head gimbal assembly in order to move the mechanical frequency response in a direction of the master frequency response.

- 15. The system of claim 11, further comprising means for controlling a trimming device (59) for adjusting a mechanical property of the head gimbal assembly in order to move the mechanical frequency response in a direction of the master frequency response.
- 16. The system of claim 12, further comprising means for controlling a trimming device (59) for adjusting a mechanical property of the head gimbal assembly in order to move the mechanical frequency response in a direction of the master frequency response.
- 17. The system of claim 13, the trimming device comprising a trimming laser.

- 18. A head gimbal assembly, comprising a trimming element (62) for adjusting a mechanical property in order to approximate a frequency response of the head gimbal assembly to a master frequency response.
- 19. The head gimbal assembly of claim 18, wherein the trimming element is adapted to be selectively removed by means of a trimming laser.